

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/840,455

REMARKS

Claims 1-11 are all the claims pending in the application.

Claims 1-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chernock et al. (US 6,229,524) in view of Blonstein et al. (US 5,955,988). Applicant respectfully traverses the claim rejection with the following comments.

Chernock et al. relates to a user interface for interaction with supplementary information embedded with a video stream and delivered to a television set in a single transport. With a remote control, as shown in FIG. 3, the system of Chernock et al. allows a user to navigate a cursor among various hot spots in a multi media presentation (MMP). The use of hot spots constrains the cursor to a small of number of screen locations, thereby simplifying the user interface. FIG. 2 shows a sequence of frames as an example of navigation among on-screen hot spots. In frame 1 three objects are visible: a car 20, a sun 30, and a tree 40. Each object has an associated hot spot 60 indicated in FIG. 2 by a shaded region 70 around each object. Locations of the hot spots 60 associated with these objects are pre-defined in the authoring stage and embedded in the MMP stream.

Blonstein et al. relates to a graphical user interface (GUI) for a television, which is provided to enable a user to input antenna location information required for setting up a dish antenna. According to a method of Blonstein et al. for providing a satellite receiver with position information for pointing an antenna at a satellite, the following steps are performed: displaying a map showing an antenna location on a TV screen, moving a cursor to the antenna location, determining latitude and longitude values of the antenna location based on coordinates of the

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cursor, and calculating antenna pointing parameters using latitude and longitude values of the antenna location.

With respect to claim 1, Applicant submits that the applied references fail to teach or suggest all of limitations of the claim. First, Applicant submits that Chernock et al. fail to disclose storing received OSD cursor display data in a memory in the display apparatus. The Examiner cites col. 4, lines 46-63 as allegedly disclosing this feature of claim 1, but Applicant disagrees. The excerpt referred to by the Examiner describes an example of a set top box (STB). The STB includes an audio and video decoder, a video encoder, a demultiplexer, a processor, and random access memory (RAM). The STB provides on screen display overlay functions, enabling placement of a cursor above the video to indicate the presence of hot spots. According to the cited excerpt, the RAM is required on the STB for storing user preference information, user identification information, and other data. As described in the cited excerpt, it is the memory of the STB in which user preference information and user identification information are stored. Thus, Chernock et al. do not disclose storing data in a memory in the display apparatus. Moreover, the reference does not disclose storing received OSD cursor display data in a memory in a display apparatus or elsewhere. Instead of storing received OSD cursor display data, Chernock et al. disclose storing user preference information and user identification information.

Second, Applicant submits that Chernock et al. do not disclose displaying cursor display data stored in the memory at a received cursor display location in the display apparatus. Here, the Examiner refers to col. 5, lines 43-54. However, rather than disclosing the aforementioned feature of claim 1, the cited excerpt describes that the objects to be displayed are pre-defined in the authoring stage and embedded in the MMP stream. In other words, rather than displaying

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cursor display data stored in the memory, Chernock et al. disclose displaying objects that are embedded in the MMP stream of data.

Furthermore, Blonstein et al. fail to make up for the deficiencies of Chernock et al.

Therefore, claim 1 and its dependent claim 2 are allowable over the prior art, for at least the above-noted reasons.

Additionally, Applicant submits that there is no suggestion or motivation to combine the references. The Examiner asserts that one of ordinary skill in the art would have combined Blonstein et al. with Chernock et al. "in order to provide the user with visual feedback." Applicant submits that the alleged motivation to combine the references is not supported by the disclosures of the references. Specifically, Chernock et al. already provide visual feedback to the user, as shown in FIG. 2. In other words, according to the disclosure of Chernock et al., a user has visual feedback while operating the remote control, thereby allowing the user to view the changes on screen as shown in FIG. 2 in frames 1-4. Hence, one of ordinary skill in the art would not have been motivated to combine the teachings of these two references to provide a feature from Blonstein et al., i.e., providing the user with visual feedback, which is already present in Chernock et al. Therefore, claims 1 and 2 are allowable over the prior art for this additional reason.

With regard to claim 3, Applicant submits that claim 3 is allowable over the prior art for reasons analogous to those presented above for claim 1. Specifically, Chernock et al. do not teach or suggest a display apparatus for storing the OSD cursor display data transmitted by the OSD source in a memory and displaying the cursor display data on the screen by reading the cursor display data stored in the memory in response to the cursor display location information.

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Instead, Chernock et al. disclose an STB having a memory for storing user preference information and user identification information. Furthermore, Chernock et al. disclose that the objects for display are embedded in the MMP stream, rather than being read from a memory in the display apparatus. Thus, independent claim 3 is allowable over the prior art.

Furthermore, Applicant submits that claim 3 is allowable over the prior art for the above-described reason of a lack of a motivation or suggestion to combine the references.

Claims 4-11 are allowable over the prior art, at least because of their dependence from claim 3.

With further regard to claims 5 and 6, Applicant submits that the prior art fails to teach or suggest the limitations of these claims. In particular, the prior art fails to disclose that the storage device is a register or that the register is an output asynchronous plug register. The Examiner admits that Chernock et al. do not teach a register as a storage device, but the Examiner asserts that the RAM of Chernock et al. is the same as the register or it is equivalent to the register. Applicant submits that one of ordinary skill in the art would not necessarily consider a RAM to be equivalent to a register. RAM is defined as “a type of computer memory that can be accessed randomly; that is, any byte of memory can be accessed without touching the preceding bytes.” See <http://www.webopedia.com/TERM/R/RAM.html>. A register, on the other hand, is defined as “a special, high-speed storage area within the CPU.” See <http://www.webopedia.com/TERM/r/register.html>. Therefore, claims 5 and 6 are allowable over the prior art for this additional reason.

Also, Applicant submits that Chernock et al. fail to teach or suggest an OSD generator for generating OSD display data in bit map format, as required by claim 7. With respect to this

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feature of claim 7, the Examiner refers to col. 4, lines 38-45. The cited excerpt states that in a preferred embodiment the MMP is transmitted to the STB in digital form. In another embodiment the vertical blanking interval is used to carry hot spot information. However, the excerpt does not disclose an OSD generator for generating OSD display data in bit map format. In fact, Chernock et al. do not appear to disclose the use of bit map format at all. Thus, Applicant submits that claim 7 is allowable over the prior art for this additional reason.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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